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| APPLICATION NO.   | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|-------------|----------------------|---------------------|------------------|
| 09/730,875  | 12/05/2000  | Satoshi Ishida       | 2933SE-64-CON       | 9363             |
| 22442   | 7590        | 03/04/2004           | EXAMINER            |                  |
| SHERIDAN ROSS PC<br>1560 BROADWAY<br>SUITE 1200<br>DENVER, CO 80202 |             |                      | LOKE, STEVEN HO YIN |                  |
|   |             |                      | ART UNIT            | PAPER NUMBER     |
|   |             |                      | 2811                |                  |

DATE MAILED: 03/04/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

|                              |                               |                               |           |
|------------------------------|-------------------------------|-------------------------------|-----------|
| <b>Office Action Summary</b> | Application No.<br>09/730,875 | Applicant(s)<br>ISHIDA ET AL. |           |
|                              | Examiner<br>Steven Loke       | Art Unit<br>2811              | <i>pw</i> |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 05 February 2004.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

1. Claim 1 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

The specification (page 22, lines 20-24) discloses the angle between the outer wall of a tapered portion 76b of a gate electrode 76 and the surface of the insulator substrate 71 is set within a range of 5° to 40°. The specification never discloses an angle between each of the inclined surfaces of the second pair of tapered end portions of the supplemental capacitor electrode and the surface of the insulator substrate being set within a range of 5° to 40° as claimed in claim 1.

2. Applicant's arguments filed 2/5/04 have been fully considered but they are not persuasive.

It is urged, in page 2 of the remarks, that the specification (page 15, line 25 to page 16, line 4, fig. 5) discloses the supplemental capacitor SC is formed in the same step as the TFT 206. However, the specification (page 15, line 25 to page 16, line 4) is directed to a supplemental capacitor and a TFT different from that of the supplemental capacitor and the TFT in fig. 9. Each of the supplemental capacitor and the TFT comprise a pair of tapered end portions in fig. 9 while each of the supplemental capacitor and the TFT comprise a pair of vertical end portions in fig. 5. Therefore, the process steps used to make the supplemental capacitor and the TFT in fig. 9 cannot be used to make the supplemental capacitor and the TFT in fig. 5.

It is urged, in page 2 of the remarks, that fig. 9 and the accompanying text related to Fig. 9 disclose the claimed invention. However, the accompanying text related to Fig. 9 does not disclose an angle between each of the inclined surfaces of the second pair of tapered end portions of the supplemental capacitor electrode and the surface of the insulator substrate being set within a range of 5° to 40°. Although fig. 9 shows an angle between each of the inclined surfaces of the second pair of tapered end portions of the supplemental capacitor electrode and the surface of the insulator substrate is similar to the angle between the outer wall of a tapered portion of a gate electrode and the surface of the insulator substrate, the written specification never discloses the angle between each of the inclined surfaces of the second pair of tapered end portions of the supplemental capacitor electrode and the surface of the insulator substrate being set within a range of 5° to 40°.

It is urged, in page 2 of the remarks, that the specification (page 4, line 25 to page 5, line 18, figs. 3, 4A to 4D) discloses the forming of a gate electrode and supplemental capacitor by etching at the same time. However, the specification never discloses the claimed invention (the embodiment of fig. 9) is formed by etching the gate electrode and the supplemental capacitor at the same time. Therefore, it cannot be determined whether the angle of the supplemental capacitor electrode is similar to the angle of the gate electrode.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Steven Loke whose telephone number is (571) 272-1657. The examiner can normally be reached on 7:50 am to 5:20 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Eddie Lee can be reached on (571) 272-1732. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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March 1, 2004

Steven Loh  
Primary Examiner

